SEQUENCE LISTING

<110>   BARZU, OCTAVIAN

        GILLES, ANN-MARIE

        SAKAMOTO, HIROSHI

        MUNIER-LEHMANN, HELENE

<120>   GENES ENCODING UMP KINASE METHODS FOR PURIFYING UMP KINASE AND METHODS
OF CHARACTERIZING UMP KINASE

<130>   217489US0

<150>   US 60/255,894

<151>   2000-12-18

<160>   3

<170>   PatentIn version 3.1

<210>   1

<211>   720

<212>   DNA

<213>   Bacillus subtilis

<400>   1
atggaaaaac caaaatacaa acgtatcgta ttaaagctta gcggggaagc attggcagga   60
gaacaggaa atggaattaa cccgactgtc attcaatcca ttgcaaagca agtgaaggaa   120
atcgctgagc ttgaagtcga agtggctgtt gttgtaggcg gcggcaacta tggcgcggaa   180

aaaacaggaa gtgacctggg catggaccgc gcgactgctg actatatggg aatgctggcg   240

acagtaatga attcgcttgc tcttcaagac agcttggaaa cactcggaat ccagtccaga   300

gtgcaaacat ccattgaaat gagacaagtt gctgaaccgt acataagaag aaaagcgata   360

cgccacttag agaaaaaacg tgtcgttatt ttcgctgcgg gcacaggaaa cccatatttc   420

tcaactgata cgacagctgc actgcgggct gctgaaattg aggcagacgt tattttaatg   480

gctaaaaata cgttgacgg tgtgtataat gctgatccta gaaaagatga atcagctgtt   540

aagtatgaat cactttctta tcttgacgtt cttaaagacg gcctggaagt catggattca   600

acagcttcct ctttatgcat ggacaatgac attccgctta tcgtcttttc tattatggaa   660

gaaggaaata tcaaacgtgc cgttatcggt gaatcaatcg gaacgatcgt gagggggaaa   720

<210>   2

<211>   711

<212>   DNA

<213>   Haemophilus influenzae

<400>   2
atgagccaac caatttataa acgtatttta ttgaaattaa gcggtgaagc attacaagga   60

gaagatggtc ttggtatcga tcctgcgatt ctcgatcgta tggctgttga aattaaagaa   120

ttagtggaga tgggtgtgga agtcagtgtc gttctcggtg gtggcaactt attccgtggc   180

gcaaaactag caaaagcggg gatgaatcgc gtggtgggcg atcatatggg aatgcttgct   240

actgtgatga atggtttggc aatgcgtgat tctttattcc gtgctgatgt gaacgcaaaa   300

ttaatgtccg ctttccaatt aaatggtatt tgcgatactt ataactggtc tgaagctatc   360

aaaatgttac gcgaaaaacg cgtagtcatt ttctctgcgg gaacgggaaa tccattcttt   420

accactgatt ctaccgcttg tttgcgtggt attgaaattg aagctgatgt tgtgttgaaa   480

gcgactaaag ttgatggtgt gtatgattgt gatcctgcga aaatcctga tgcaaaactt   540

tataaaaatt taagttatgc agaagtgatc gataagaat aaaagtgat ggacttatcg   600

gcgtttactt tagctcgcga tcatggcatg ccgattagag tgttcaatat gggtaaacct   660

-2-

ggagcattac gtcaagtagt gactggtact gaagaaggca ccactatttg t　　　　711

<210> 3

<211> 786

<212> DNA

<213> Mycobacterium tuberculosis

<400> 3
atgacagagc ccgatgtcgc cggcgcgccg gcttcgaagc cggagcctgc gagcactggc　　60

gccgcgtcgg cggctcagct gtccgggtac tcgcgagtgt tgctcaagct cggcggggaa　　120

atgttcggcg gaggccaggt cgggctggat cccgatgtcg tcgcgcaggt ggcccgccag　　180

atcgccgatg tggtgcgcgg cggcgtccag atcgccgtcg tgatcggcgg cggcaacttt　　240

ttccggggcg cacagctgca gcagctcggt atggagcgca ccaggtcgga ctatatggga　　300

atgctcggca ctgtcatgaa cagccttgca ctgcaagact tcctggagaa ggaaggcatc　　360

gttacccgag tccagaccgc gatcaccatg ggccaggtgg ccgaaccgta cctgccgttg　　420

cgggccgtcc gccacctgga gaagggacgg gtggtgatct tcggtgccgg catggggctg　　480

ccgtactttt cgacggatac caccgcagcg cagcgtgcgc tggagatcgg tgccgacgtg　　540

gtcttgatgg ccaaagcggt cgacggtgtg tttgctgagg atccgcgggt gaaccccgag　　600

gccgaactgc tcaccgccgt cagtcatcgt gaggtcctcg accgcgggct gcgagtagcc　　660

gacgccaccg cgttcagcct ttgcatggac aatggcatgc cgatcctggt gttcaacctg　　720

ctgaccgatg gcaatatcgc ccgtgctgtt cggggtgaga agatcggaac gctggtcacc　　780

acctaa　　　　786